

Concepts for Flare Monitoring Workshop
Contra Costa County Administration Building

August 28, 2002 at 7:00 PM

Require Monitoring of Vent Gas Composition and Volume to the Flare

Regulation 1 Section 521 states the APCO may require the installation of suitable instruments to monitor continuously the nature, quantity and opacity of any air pollutant controlled by District regulations where there is a reason to believe such emissions are in potential violation of such regulations. Regulation 2, Rule 1 Section 403 Permit Conditions states the APCO may impose any permit condition that he deems reasonably necessary to insure compliance with federal or California law or District regulations. Currently not all refineries have a condition to monitor vent gas composition and volume to the flare.

Concept: Require continuous monitoring for vent gas composition including flow, temperature, pressure, hydrocarbons, sulfur content, carbon monoxide, carbon dioxide, hydrogen, nitrogen etc.

Basis: The 2001 Ozone Attainment Plan Control Measure #15 commitment to achieve additional emission reductions through implementation of new control measures.

Require Video Surveillance Recording

Video cameras and monitors are installed to view most flares. Currently not all cameras are capable of 24 hour recording of each flare.

Concept: Require the installation of a video system capable of recording all flare activity.

Basis: Public expectation and visual documentation of events.

Reporting of Flaring Activity

Some reporting to the District occurs when there is a formal request for breakdown relief (Regulation 1 Section 431). Regulation 2, Rule 1 Section 403 Permit Conditions states the APCO may impose any permit condition that he deems reasonably necessary to insure compliance with federal or California law or District regulations. Currently not all refineries have a condition to report flaring.

Concept: Report to the District in a timely matter all flaring activity. Reporting would include information about the composition of the vent gasses, estimation of emissions from the flare and the specifics of the flaring event.

Basis: The 2001 Ozone Attainment Plan Further Study Measure #8 would, for each refinery, examine (1) volume and composition of gases sent to the blowdown system, (2) contribution of PRV emissions to these flows, (3) impacts on flows from venting additional PRVs to the blowdown system, (4) gas recovery system capacity, (5) flows to flares, and (6) flare efficiency. The study would ultimately attempt to determine the feasibility, cost, and safety of emission reductions that would come from reducing flows to the blowdown system and from increasing gas recovery capacity and flare efficiency. A reporting requirement is mandatory to accomplish the goals of this measure.

Verification Opportunities for Quality Assurance and District Verification

Regulation 1 Section 500 specifies requirements for accuracy testing and sampling.

Concept: Identify the appropriate protocols for accuracy testing and sampling.